

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/687,733	JUNG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Charles Chow	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/26/2007.
2. ☒ The allowed claim(s) is/are 4-8, 15-17 and 26-31.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

Art Unit: 2618

### Detailed Action

1. This office action is for amendment received on 2/26/2007.

### Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Claims 4-8, 15-17, 26-31 are allowable over the prior art of record. The prior arts fail to teach the allowable features, singly, particularly, or in combination.

Applicant has amended the independent claim 26 to include the features from objected claim 27 & canceled claim 27. Other claims 4-8, 15-17, 29-31 were indicated to be allowable in the last office action mailed on 11/24//2006. Claims 1-3, 9-14, 18-25 were canceled previously.

The prior arts fail to teach the allowable features for the **a power transmission unit and a rotation controller coupled to the power transmission unit**, disposed in a housing installed at hinge of the main body in a rotating **axis perpendicular to the folding and unfolding axis to automatically rotate the folder** with respect to the main body;

wherein the power transmission comprises **a pair of bevel gears; further comprises a fixed member**, wherein the fixed member comprises **a washer, and a snap ring** [ in independent **claim 4**];

the prior arts fail to teach the further features, wherein the rotation termination detecting unit comprises: at least one fixed terminal disposed on the power transmission unit; and a rotation terminal disposed on the folder to correspond to the fixed terminal, and **rotating together with the folder**, and detecting the termination of the rotation of the folder when the rotation terminal correspond to the fixed terminal [ in independent **claim 15**];

Art Unit: 2618

The prior arts fail to teach the objected features in claim 26, a rotation unit having one end coupled to the folder and other end coupled to an inside of hinge in a rotation axis perpendicular to the folding and unfolding axis

wherein the rotation unit comprising a **motor fixedly couple to the folder and a rotation shaft controller disposed in the main body to be coupled to a shaft of the motr to control a rotation of the shaft** [ in independent **clam 26**];

the prior arts fail to teach the features for, **a third portion coupled to transmit a driving force** between the first portion and the second portion to rotate the folder in first and second direction about a rotation axis perpendicular to the folding and unfolding axis with respect to the main body [ in independent **claim 29**].

The dependent claims are also allowable due to their dependency upon the independent claims and the having additional claimed features.

The closest prior art **Hunag [US 2004/0062,171 A1]** teaches an optical disk device in Fig. 4, having a motor 23 coupled to the gears 223, 224 for opening, closing, the cover 1 which has position sensing front, rear post 113, 114 to contact switch 41 for the motor driving force control, but fails to teach the rotation of the folder about a rotation axis perpendicular to the folding and unfolding axis, with respect to the main body, above.

**Barnett [US 2004/0045,131 A1]** teaches a mobile station 10 having the hinge assembly 28 [ Fig. 1-10, abstract] for manually rotate, swivel, twist, the display cover 16 around multiple transversely extending axes & longitudinally extending axis, but fails to teach the motor driving force for rotating folder about a rotation axis perpendicular to the folding and unfolding axis with respect to the main body, above.

Other prior arts in below has been considered, but they fail to teach the above allowable features.

**Kfoury [US 6,549,789 B1]** teaches the user interface 212 can be rotated about an axis which is perpendicular to the folding, unfolding axis, but fails to teach the display, third portion, the motor driving force for rotating folder about a rotation axis perpendicular to the folding and unfolding axis with respect to the main body, above.

**Till (US 6,374,089 B1)** teaches the motor 50 [Fig. 1-3] for rotation the cover 20 [abstract, col. 1, line 49 to col. 2, line 31], but fails to teach the above allowable features.

**Atsushi (JP 2003-056,545)** teaches the motor driven hinge for rotating cover display [Fig. 1-5, (57) abstract], but fail to teach above allowable features.

Other prior arts are considered. They are: **Kato et al. [US 6,175,990 B1]**, **Tanaka [US 2004/0189,856 A1]**, **Cheon [US 6,484,016 B1]**, **Park et al. [US 2005/0192,066 A1]**, **Kim [US 2005/0160,558 A1]**, **Moon [US 6,275,376 B1]**, **Murry et al. [US 6,353,733 B1]**, **Fujita [US 6,115,886]**.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

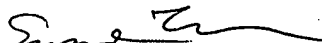
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status

Art Unit: 2618

information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow *C.C.*

March 9, 2007.

  
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